

REMARKS/ARGUMENTS

Claims 1-2 and 4-18 are active in this application. Support for Claims 4-18 is found in the specification on pages 5-11. Claims 1 and 2 have been amended to improve readability. The specification is amended to correct obvious typographical errors.

No new matter is added.

The rejection of Claims 1 and 2 under 35 U.S.C. § 102(b) in view of JP 09-003573 (JP '573) or XP 002278686 (XP '686) is untenable for the following reasons.

Neither JP '573 nor XP '686 describe a pure titanium material formed of pure titanium comprising Fe, Nb, and Co contents as claimed. The Examiner has noted that since neither JP '573 nor XP '686 do not mention the presence of Nb or Co, the titanium described inherently contain "substantially zero Co and Nb." (see page 2 of the Official Action). However, the Examiner has provided no proof of this. Rather, the Examiner is using Applicants' disclosure against them. As noted by the court in *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323 (CCPA 1981), the mere fact that a certain thing may result from a given set of circumstances is not sufficient to prove inherency. Inherency may not be established by probabilities or possibilities. Something that is inherent must inevitably be the result each and every time.

It is by now well settled that the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984), quoting *In re Warner*, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967).

As noted by the Board of Patent Appeals and Interferences in *Ex parte Skinner*, 2 USPQ2d 1788, before an Examiner can switch the burden of proof of showing non-inherency to the applicant, the Examiner must provide some evidence or scientific reasoning to establish

the reasonableness of the Examiner's belief that the functional limitation is an inherent characteristic of the prior art. In this case, the Examiner has provided no such evidence.

Contrary to the Examiner's opinion, the titanium described in JP '573 or XP '686 likely contains significantly more than 0.02 % by mass of Nb and Co. Both JP '573 and XP '686 describe commercial preparations of titanium (see [0012] of JP '573 and the 1<sup>st</sup> paragraph of XP '686). Commercial grades of titanium, however, contain significant quantities of Nb and Co as impurities.

Applicants direct the Examiner's attention to the attached publication of ASTM "Standard Specification for Titanium and Titanium Alloy Strip, Sheet and Plate" (ASTM Designation B 265-99). In Table 2 (on page 162), commercial grades of titanium are outlined. Grade 1 is a common commercial grade of titanium (see, e.g., paragraph 1 of XP '686). Specific attention is directed to the rows noted "Residuals max each" in which the amount of residuals are 0.1 % and "Residuals max total" in which the amount of max is 0.4%. Each of these rows includes noted footnotes D, E, and F. Those footnotes appear at the end of Table 2 on page 163 and, in particular, it is noted that these residuals include niobium and cobalt. Thus, taken together, this ASTM specification sheet describes that niobium and cobalt can be present in amounts of 0.1 %. This is clearly more than the amounts defined in the claimed invention.

JP '573 in [0012] refers to "titanium sponge of the high grade." This material may also have significantly higher amounts of cobalt and niobium relative to the claimed titanium material. The Examiner's attention is directed to the second attached document: ASTM Designation : B 299-99 "Standard Specification for Titanium Sponge." Specifically, as described in Table 1, the total impurities are 0.05 %, which as noted above and in the ASTM B 265-99 document include cobalt and niobium. Thus, niobium and cobalt may be present in amounts greater than the required amounts defined in the claimed invention.

Inherency has not been shown or explained by the Examiner. Applicants have challenged the Examiner's unsupported assumption of inherency and have shown that inherency does not inevitably occur in the prior art materials. Therefore, the rejection is believed to be unsustainable and request withdrawal of the same.

For these same reasons, the rejection of Claim 2 under 35 U.S.C. § 103(a) in view of JP '573 or XP '686 is untenable and therefore should also be withdrawn.

The rejection of Claim 3 under 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) in view of JP '573 or XP '686 is obviated by the cancellation of Claim 3.

Respectfully submitted,

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